

**Developing a Range of Reasonable Alternatives
in Oil, Gas, and Geothermal
Development Environmental Impact Statements (EIS)**

Introduction

Environmental Impact Statements (EISs) for oil, gas, and geothermal development must evaluate and analyze a range of reasonable alternatives that provide the decision maker and the public with alternative means of meeting the purpose and need for the action, including alternative forms of mitigation for a “clear choice of options.” The guidance that follows pertains to post-leasing National Environmental Policy Act (NEPA) analysis and not to land use plan revisions or amendments.

Section 102(2)(3) of NEPA requires agencies to consider “appropriate alternatives” to the proposed action and describe their environmental consequences. The Council on Environmental Quality (CEQ) regulations at 40 CFR 1502.14(a) require that agencies rigorously explore and objectively evaluate all reasonable alternatives and, for alternatives eliminated from detailed study, briefly explain the reasons for elimination.

The courts have clarified that the agency’s obligation is to analyze an appropriate range of alternatives, not “every alternative.” Headwaters, Inc. v. Bureau of Land Management, 914 F.2d 1174, 1180-81 (9th Cir. 1990). The NEPA “requires an agency to set forth only those alternatives necessary to permit a reasoned choice.” Hells Canyon Alliance v. U.S. Forest Service, 227 F.3d 1170, 1181 (9th Cir. 2000).

The alternatives that must be analyzed are those (1) which meet the purpose and need for the proposed action; (2) which reduce the adverse environmental effects of the proposed action; (3) which are feasible; (4) whose effects can be analyzed; and (5) which are not substantially similar in effects to an alternative that is analyzed.

Role of the Purpose and Need in Defining the Range of Alternatives

You must have a well-defined purpose and need. The Purpose and Need statement describes the BLM’s purpose of and need for action. The background section for the Purpose and Need statement should take into account the needs and goals of the parties involved in the application and the function that the agency plays in the decisional process, i.e. that after the lease is issued, the agency has already decided that oil and gas development in general is acceptable, but now must decide whether to approve the means of doing so at a particular location proposed by the applicant. The Purpose and Need cannot be so “unreasonably” narrow as to eliminate otherwise reasonable alternatives from consideration. To the extent possible, the Purpose and Need section should tie to existing decisions, policy, regulation, or law.

The Purpose and Need section of an oil, gas or geothermal NEPA analysis should include the BLM's energy goals; a description of the actions proposed in the lessee's applications; and conformity with the goals, objectives, and decisions of the applicable land use plan for the project areas.

For example, in abbreviated form the Purpose and Need might read, "The purpose and need of this full field development is to determine whether to permit environmentally responsible exploration and development of the oil and gas resource within the project area, consistent with the existing leases to continue to meet the nation's energy needs. This includes development of appropriate mitigation consistent with the goals, objectives, and decisions of the (name) RMP and applicable policies, regulations, and laws. The exploration and future development of the oil and gas resources will help supply our future domestic energy needs and play an integral part in our nation's energy security.

A range of reasonable alternatives must be developed based on the purpose and need for the action.

Recommended Oil, Gas, and Geothermal Alternatives

It is generally appropriate for EISs addressing oil, gas, and geothermal development to consider the following alternatives:

- No Action Alternative: This alternative is based on denial of the proposed action and generally assumes that no new drilling would occur in the project area on Federal mineral estate beyond what is currently permitted and/or actions analyzed and approved through previous NEPA decision documents (e.g. previous field development document). The No Action Alternative must be analyzed, regardless of conformance with the purpose and need, or its feasibility. This is a mandatory requirement under CEQ regulations, and necessary to provide a clear choice of management options for the decision maker.

Note for example, a new proposed action for 40 acre spacing is now under review. The No Action alternative analysis would be based on denial of the proposed 40 acre spacing. However, the alternative must consider the impacts of development of any previously authorized oil and gas development not part of the proposed action (i.e., 160 acre spacing), even if that level of development is not yet completed (by referencing the previously completed NEPA document).

- Proponent's proposed action as modified by any statutory requirements (such as endangered species protection).
- Proponent's proposed action with BLM recommended mitigation (including the Best Management Practices (BMP) described in WO-IM-2004-194). If the proposed action adequately mitigates identified impacts and includes BMPs, a specific BLM recommended mitigation alternative is not necessary.

- Other reasonable alternatives that address identified impacts, such as development with additional mitigation (such as alternative well locations, alternative access routes, additional timing or spacing constraints; offsite mitigation, different methods for treating produced water, horizontal well drilling, or other technologies).
- In addition, based on the new statutory CXs, alternatives that analyze the impacts of higher well density and development levels beyond what is proposed should be considered. Including such analysis will facilitate the use of the statutory CXs in the future should development require well densities greater than what is currently proposed.

The BLM shall examine reasonable alternatives that would reduce impacts, even if implementation would require amendment of the applicable land use plan. The BMPs, such as those found at www.blm.gov/bmp, should be considered in the development of the alternatives and mitigation. The BLM offices are strongly encouraged to look outside their administrative boundaries and consider what is being applied in similar operations at other locations across the nation. Field Offices and operators are continually developing and applying new techniques and technologies to reduce impacts and costs. Many mitigation techniques successfully used in one BLM office may be directly applicable to another locale. Basic oil, gas, and geothermal drilling and production requirements are surprisingly similar throughout the industry and there is little rationale for not considering successful mitigation strategies and alternatives developed in other offices and regions.